

REMARKS

Pursuant to 37 C.F.R. § 1.111, Applicant respectfully requests reconsideration of the claim rejections set forth in the Office communication dated August 25, 2006.

Summary

Claim 1 is currently amended. No new matter has been added as a result.

Claim 2 is cancelled.

Claims 1 and 3 – 6 are currently pending.

Claim Rejections – 35 U.S.C. § 103(a)

Claims 1 – 4 and 6 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Dill et al. (U.S. Patent No. 6,819,527). Claim 5 was rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Dill et al. in view of Ohashi et al. (U.S. Patent No. 5,828,533).

Claim 1 recites, *inter alia*, the second insulating sub-layers have joint surfaces with the second coil pieces between the second coil pieces and both end surfaces of the magnetic layer, the joint surfaces being inclined toward the first coil piece side away from at least both end surfaces of the magnetic layer.

Dill et al. fail to disclose the second insulating sub-layers have joint surfaces with the second coil pieces and the joint surfaces being inclined toward the first coil piece side away from at least both end surfaces of the magnetic layer. In fact, Dill et al. teach a contrary arrangement. Dill et al. teach the upper insulator material layer formed outside the second coil pieces 184 (Figure 23). The upper surface of the insulator layer 100 is formed between the yoke 88 and the vertical interconnect vias 164 (Figure 21). In other words, the insulator layer 100 is formed between the yoke and the second coil pieces 184 (Figure 23). The insulator layer 100 is flush with the upper surface of the yoke 88 and crosses the interconnect vias 164 at a right angle. Accordingly, claim 1 is allowable over the cited reference.

Claim 1 is also allowable for additional reasons that are independent of those described above. Claim 1 is also allowable because the cited references fail to disclose additional features of claim 1. Claim 1 recites, *inter alia*, the second insulating sub-layers are formed on both sides of the first insulating sub-layer to have a space larger than at least a track width in the track width direction, and extend beyond both end surfaces of the magnetic layer in the track width direction so as to be interposed between the second coil pieces and both end surfaces of the magnetic layer.

Dill et al. fail to disclose or suggest each and every feature of claim 1. In fact, Dill et al. teach a contrary arrangement. Dill et al. teach an upper surface of the insulator layer 100 is formed between the yoke 88 and the upper coil traces 184 (Figure 23). The upper surface of the insulator layer 100 is formed flush with the upper surface of the yoke 88 through a CMP process (column 4, lines 63 – 66; Figure 10 and 23). Dill et al. also teach an etch stop layer 120 is used as a mask for forming the vertical interconnect vias 164 in the insulator layer 100 by etching (column 4, lines 38 – 54).


Dependent claims 2 – 6 depend from allowable claim 1, so are allowable for at least this reason.

Conclusion

For at least the reasons presented above, the Applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, Applicant requests that a Notice of Allowance be issued in the present case.

The Examiner is respectfully requested to contact the undersigned in the event that a telephone interview would expedite consideration of the application.

Respectfully submitted,



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